(19) JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: **07034136 A**

(43) Date of publication of application: **03.02.95**

(51) Int. Cl **C21D 9/46**
C21D 8/04
C22C 38/00
C22C 38/06

(21) Application number: **05198754**

(22) Date of filing: **19.07.93**

(71) Applicant: **NIPPON STEEL CORP**

(72) Inventor: **YAMADA TERUAKI**
UKIANA TOSHIYASU
ODA MASAHIKO

(54) PRODUCTION OF BAKING HARDENABILITY HIGH STRENGTH COLD ROLLED STEEL SHEET EXCELLENT IN WORKABILITY

(57) Abstract:

PURPOSE: To produce a baking hardenability high strength cold rolled steel sheet excellent in workability by subjecting a cold rolled steel sheet having a specified compsn. to recrystallization continuous annealing and rapid cooling treatment under specified conditions and thereafter executing skinpass rolling.

CONSTITUTION: A slab contg., by weight, 0.070 to 0.200% C, ≤0.30% Si, 0.50 to 1.50% Mn, ≤0.030% P, ≤0.025% S, 0.002 to 0.100% sol.Al and ≤0.012% N is subjected to hot rolling and is coiled into a hot rolled steel strip, which is thereafter subjected to cold rolling into a cold rolled steel strip. At the time of subjecting the cold rolled steel strip to recrystallization continuous annealing, it is rapidly heated in the temp. range of ≤500°C at 300 to 2000°C/sec ultrarapid heating temp., is held to 730 to 830°C for ≤2sec, is thereafter rapidly cooled at least to 400°C at 100 to 500°C/sec cooling temp. and is furthermore air-cooled to a room temp. This is subjected to skinpass rolling at 0.5 to 5.0% rolling ratio, by which the high strength cold rolled steel sheet having ≤60kgf/mm^2 strength and excellent in workability can be produced.